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ABSTRACT

This report presents results of a comparative cost study of nursing education programs provided by community colleges, general academic institutions, and health science centers. The study delineates and explains differences in costs and recommends a formula to allocate all general revenue funds appropriated for nursing education programs. The report first presents the study's findings and conclusions about the health care industry, Texas nursing education, and funding recommendations. Next, the report provides background information on the health care industry and a description of nursing education in Texas as it has evolved in the community colleges, general academic institutions, and health care centers. Tables compare the total costs per student to complete the certification or degree program, based on type of institution and type of program. Finally, formula recommendations for funding are presented. Appendices include the recommended formulae for state-support of vocational-technical programs, for faculty salaries and departmental operating budgets, and for nursing faculty salaries in health science centers. Contains 10 references. (GLR)

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TEXAS NURSING EDUCATION COST STUDY

AND

FUNDING RECOMMENDATIONS

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Table of Contents

Purpose of the Study 1

Findings and Conclusions 1

About the Health Care Industry 1
About Texas Nursing Education 2
Funding Recommendations 3

Overview of Health Care Industry 5

Texas Nursing Education 6

Types of Degree Programs in Texas Public Institutions 8

Cost Study - Texas Public Schools of Nursing 9

Cost Analysis by Institutional Type 10

Table I - Total Cost Per Student-Undergraduate Programs 11

Table II - Total Cost Per Student-Graduate Programs 12

Table III - Cost Analysis by Type of Program 13

Formula Recommendations 17

Appendices 20

A. Letter from Roger Bolger, M.D., President, Association of Academic Health Centers
B. Recommended Formula for State-Support of Vocational-Technical Programs
C. Recommended Formula for Faculty Salaries
D. Recommended Formula for Departmental Operating Expense
E. Recommended Formula for Health Science Centers' Nursing Faculty Salaries
F. Recommended Coordinating Board Trusteed Funds for Nursing Program Expansions
G. Selected References

The Purpose of The Study

The 71st Legislature, in Senate Bill 222, Article III, Rider 25, Regular Session 1989, directed "the Texas Higher Education Coordinating Board to conduct a comparative cost study of nursing education programs provided by community colleges, general academic institutions, and health science centers, which clearly delineates and explains differences in costs and which results in a recommendation for a formula to allocate all general revenue funds appropriated for nursing education programs. A report of the cost study and the recommended formula are to be presented to the Legislative Budget Board by September 30, 1990."

Findings and Conclusions

Because of the obvious relationship between the cost of nursing education programs and the demands of the health care system, both were analyzed for this study to underscore the importance of funding for higher education programs.

About the Health Care Industry:

I. The Nation faces a critical shortage in nurses and nursing faculty. The shortage exists despite record numbers of nurse licensures. Contributing factors are:
   - Increased demand for health care due to significant changes in the system;
   - Expanded career opportunities in fields other than nursing for females (97% of all registered nurses are female); and
   - Diminished image of nursing profession. The perception is that of difficult hours, stressful working conditions, lower starting salaries with limited long-term earning potential. The salary progression (difference between average starting and average maximum salaries) for nursing is 69 percent compared to 209 percent for accountants.
   - Increasingly complex nursing role because of AIDS patients and a greater concentration of critically ill patients.

II. Nursing education and licensure for nursing are related activities; but their functions are separate and distinct. Licensure is designed to protect the public from harm. It ensures that the graduate has a minimum core of knowledge to safely provide basic nursing care. Nursing education programs prepare graduates to practice in different ways.

III. Until now, employers did not formally recognize differences in nursing education degree levels through job assignment, performance expectations or pay. A May 1990 survey conducted by the National Commission on Nursing Implementation Project shows that employers' policies are changing. The trend in hospitals is toward differentiating job assignments and pay according to education and experience. The hospitals surveyed indicated that by 1992, about 90 percent expect to recognize differences in education and experience through job descriptions and pay levels.

About Texas Nursing Education:

I. In Texas, three sites for public schools of nursing have evolved - community colleges, general academic institutions and health science centers. During their development, different missions and funding mechanisms were established. These differences influence nursing program costs within the three types of institutions.

II. Existing funding mechanisms are summarized as follows- for detailed description, see pages 17 and 18:

1) Community Colleges - Partially state-supported. State formula system, which is student contact hour driven, produces a lump sum appropriation for each college. Formula rates are based on a composite of cost studies.

2) General academic institutions - State formula system produces a lump sum appropriation for each institution based on separate formulas for 14 elements of cost. The universities budget for programs according to priorities and justifications presented by the various programs.

3) Health science centers - State appropriation for each institution is based on justifiable need.

The function of the formulas is to recommend a level of funding and to equitably distribute the funds available. However, the Governor and the Legislature determine the actual level of funding received.

III. Because of the diverse health care settings, nursing schools benefit from and should continue to use these three different institutional sites.

IV. Generally, health science centers' average nursing program costs are higher than those at general academic institutions. This is primarily due to higher average nursing faculty salaries and other institutional costs at the health science centers.

V. Except for doctoral programs, Texas average nursing program construction and costs are not significantly different from those of the National Reasonable Set-determined by a panel of experts in the health care field (defined on page 9). In the doctoral nursing programs, major differences between the Texas average and the National Reasonable Set relate to three areas:

1) Texas faculty teaching loads are almost double that recommended in the National Reasonable Set;

2) Texas average faculty salaries are about $8,000 lower than the National Reasonable Set; and

3) Faculty support and other cost factors are considerably lower in Texas average than in the National Reasonable Set.

Although the Texas average cost follows that of the National Reasonable Set, certain individual programs vary significantly. Primary variables contributing to program cost differences are:

- Total student contact hours- More hours demand more resources;
- Instruction mode group size - Smaller groups demand more resources;
- Entering class size - More students demand more resources, but are more efficient per unit;
- Faculty hours available to teach - Fewer hours available, more faculty needed; and
- Average faculty salaries and other costs.

Funding Recommendations

Both community colleges and general academic institutions have their own formula systems (see pages 17 and 18 for details). Neither system has a formula specific to funding schools of nursing. The systems produce a lump sum appropriation for each institution based on formulas for certain elements of costs. The formulas contain a matrix of rates which relate to each other. To extract one element and replace it with another will change the relationships within the system and warrants continued study. With this caveat, we recommend the following:

FUNDING RECOMMENDATIONS

1) That in bringing nursing programs at health science centers under a formula, nursing programs at community colleges and senior colleges and universities continue to receive funding within the formula systems.

2) That nursing programs at health science centers receive funding for nursing faculty salaries under the new formula recommended by the Coordinating Board. And, the Board develop formulas for funding departmental operating and instructional administrative expenses at schools of nursing for the 1994-95 biennium.

3) That nursing programs at senior colleges and universities be funded for faculty salaries on the new health science centers' formula for nursing faculty salaries with the provision that no funds generated under this formula be transferred to any other program or use.

4) That a one-time special fund, outside of the formula system, to increase nursing school enrollments be trusteed to the Coordinating Board to allocate to public community colleges during the 1992-93 biennium. It is further recommended that private educational institutions be included in a similar fund.

5) That the Legislature, failing to accept recommendation 3 above, provide a special fund similar to that recommended under recommendation 4 for the Coordinating Board to allocate to the senior colleges and universities during the 1992-93 biennium.

The one-time special trusteed funds recommendation is in response to the nursing shortage. To insure that the special fund increases nursing school enrollments rather than shift students from private to public schools, both private and public educational institutions should be included. The institutions were surveyed to determine how may additional nursing students they could accommodate given additional funds. For those institutions participating in such trusteed funds, the institution will receive $7,000 for each certified additional full-time equivalent student enrolled during the 1992-93 biennium. This is a one-time recommendation since the additional enrollments at public schools will increase formula produced amounts for the 1994-95 biennium. Private schools will not receive state funding beyond the 1992-93 biennium.

If fully funded, the recommendations represent an estimated increase over 1991 appropriations of:

Dollar Increase Over 1991
(In Millions)

	Under Recommendation 3			Under Recommendation 4		
	1992	1993	Bienn	1992	1993	Bienn
Health Science Centers' New Faculty Salary Formula:						
Health Science Centers	$ 4.5	$ 5.3	$ 9.8	$ 4.5	$ 5.3	$ 9.8
Public Universities*	5.3	10.4	15.7	**	**	**
Trusteed Funds:						
Public Universities	--	--	--	3.5	7.0	10.5
Public Community Colleges	4.9	9.8	14.7	4.9	9.8	14.7
Private Universities	1.4	1.4	2.8	1.4	1.4	2.8
Totals	$16.1	$26.9	$43.0	$14.3	$23.5	$37.8

* Dollar amounts shown represent increase over current formula system funding.
** Will revert to current formula system funding.

Funding for 1992-1993 is based upon actual enrollments so estimated increases may differ slightly from the actual increase.

Details related to the formula funding and special trusteed funds are provided in the appendix.

Overview of Health Care Industry

The educational system does not operate in a vacuum. It must look to its targeted markets to determine manpower needs, technological advances and trends. Changes in the market affect program curriculum and ultimately program costs. Nursing education's targeted market is the health care system.

The Legislature's request comes when the nation is experiencing a nursing care shortage of a magnitude unseen in decades. The American Association of Colleges of Nursing (AACN) reports that now, one of every 10 budgeted positions for hospital staff registered nurses remains unfilled. This represents a 10 percent vacancy rate, a slight improvement over last year, but still more than double that of 1983's 4.4 percent rate. Over 1.6 million registered nurses are now in the nation's workforce (the highest number in history). Federal estimates project more than 600,000 new jobs for RNs by the year 2000 to meet the demand in all nursing settings. Futhermore, the shortage of RNs is greatest at the baccalaureate and higher levels. Nursing settings have also expanded and include hospitals, nursing homes, health maintenance organizations, outpatient surgicenters, hospices, private homes, schools, industry and public health agencies.

In addition to the staff nurse shortage, the nation is also facing a shortage of qualified faculty (with at least master's degree required) to teach in nursing programs. Projections for the year 2000 indicate that only one-third the required number of nurses needed will be available at the master's and doctoral level. This shortage of qualified faculty makes it difficult for nursing schools to expand enrollments to meet the demand for additional RNs.

The demand for nursing has skyrocketed because economic and social forces are producing major changes in the health care delivery system. These driving forces are many, complex and interdependent. For instance, before 1982, hospitals were places in which acute illness or surgical interventions were followed by a recuperation period of 2-5 days. During this time, the patient continued to receive nursing care and education in self care upon dismissal. The Tax Equalization and Fiscal Responsibility Act (TEFRA) legislated in 1982, dramatically changed the mix of hospitalized patients. Diagnosis related groupings (DRGs) and their corresponding blanket payment assignments encouraged hospitals to work with physicians to dismiss patients as quickly as possible. The net effect of these changes are hospitals populated by acutely ill patients who need high level, expert care by greater numbers of registered nurses. Between 1972 and 1986, the number of RNs used per 100 patients nearly doubled from 50 to 96. The nurses must compact the care and teaching which once occurred over 5 to 7 days into half that time.

In addition, projections suggest that by the year 2050, 33 percent of the U.S. population will be over 65 years of age and 5 percent (16 million) will be over 85 years of age. The increasing number of elderly people is not the only reason services for this part of the population will need to be expanded. Such factors as a highly mobile population, decreased

family sizes and multiple wage earners in the family diminishes the family's ability to provide primary care. This need for eldercare will create more demands on the health care delivery system.

Other demands on the health care delivery system related to debilitating and terminal illnesses, such as Alzheimer's disease and AIDS, also contribute to the critical need for nursing services. These factors have a significant impact on health care, economics and public policy, including nursing education and the delivery of nursing care services.

While the demand for registered nurses has never been greater, the AACN states that enrollments of first-time nursing students in baccalaureate degree programs declined 32 percent between 1984 and 1988. Incoming classes over the last five years have not been large enough to replace each year's graduates. Therefore, the shortfall of new nurses is expected to continue over the next several years. During this period of declining enrollments, schools of nursing scaled down their operations losing faculty and clinical space. When unexpected enrollment increases occurred in the 1989-90 academic year, the schools were not able to accept all the qualified applicants. The educational system can expand to accept additional students. However, some of the reasons for the diminishing supply of professional nurses still exist, such as:

- The profession remains predominately female (about 97%). The combination of a declining college-age population and rising career opportunities for women in business, medicine, engineering, law and other fields forces nursing to compete, for the first time, with other professions.

- A diminished image of the nursing profession which is perceived to have difficult hours, stressful working conditions and limited long-term earning potential. The salary progression (difference between average starting and average maximum salaries) for nurses is 69 percent compared to 209 percent for accountants.

To attract and retain professional nurses, the health care delivery system has begun and must continue to work on solutions to these problems. The education system alone cannot resolve the nursing shortage.

Texas Nursing Education

Three sites for public schools of nursing, none of which are mutually exclusive in the nursing education they offer, have evolved in Texas:

1) Community Colleges - offering LVN, LVN to ADN and ADN programs

2) General Academic Institutions - offering undergraduate and graduate nursing degree programs which are fully integrated within the university. These programs offer the student the opportunity to gain a general education as well as professional training.

3) Health Science Centers - offering upper-level undergraduate and graduate nursing degree programs. In health science centers, students from several health professions can work together in educational projects, research and clinical service in primary care settings.

Dr. Robert Bulger, President of the Association of Academic Health Centers in Washington, D.C. states, "It is my belief that society needs nurses from a variety of backgrounds, with a variety of skills and capacities; we clearly need some who can hold their own in the high technology of the modern medical center and who can become and remain comfortable in that tough environment throughout their professional lives" (see letter in appendix).

These three types of institutions also differ somewhat in their overall missions:

Community Colleges

In Texas, the statutorily-mandated mission of community colleges encompasses the offering of vocational, technical, and academic courses awarding certification or an associate degree. Their mission also includes offerings in continuing education, remedial or compensatory education consistent with open-admission policies and counseling or guidance programs (Vernon's Civil Statutes, Title 3, Subtitle G. Chapt. 130).

General Academic Institutions

The overall mission of the general academic institutions is to provide education for the undergraduate and graduate student in diverse disciplines, to conduct research, and to provide service to the public through continuing education.

Health Science Centers

The overall mission of the health science centers is much the same as the general academic institutions, that of teaching, research and service. However, the emphasis is different. In health science centers, research has high priority along with teaching. Community service in the form of clinical practice is also stressed.

Types of Degree Programs in Texas Public Institutions

Degreee	Certificate	Associate	Baccalaureate	Master's	Doctorate
Type of Nurse	Vocational	Technical	Professional	Graduate	Graduate
Purpose of Education:	Prepare individuals to function under the guidance of a RN or physician and engage in basic therapeutic rehabilitation and preventive care.	Prepare individuals who would be complimentary to professional nurse practitioners and to extend nursing's delivery of health care.	Prepare individuals to use an expanded body of knowledge and a wide variety of skills in providing health care in diverse settings. Increase skills in critical thinking, clinical investigation and decision making.	Prepare professionals for advanced nursing practice and research roles as well as for leadership roles. Use research to improve nursing care and to use substantive nursing knowledge to make independent and collaborative decisions about client care.	Prepare professionals with broad repertoire of strategies and skills in generalist nursing as well as to be contributors to the nursing discipline and the development of practice skills.
Licensure	LVN/LPN	RN	RN	RN	RN

While nursing education and licensure for nursing are related activities, their functions are separate and distinct. Licensure is designed to protect the public from harm. It insures that the graduate has a minimum core of knowledge to safely provide basic nursing care. Nursing education programs prepare graduates to practice in different ways. Until now, employers did not formally recognize these differences. Usually, no distinction was made in job descriptions, expectations in nursing performance or pay.

In response to health care conditions, technology and demands that have grown increasingly complex, employers are encouraging practicing LVN's and RN's to advance their education. Current employment trends show a move toward "differentiated" levels of practice. Differentiated practice is defined by the National Commission on Nursing Implementation Project as "a personnel deployment model in which roles and functions of nurses are defined based on education, experience and competence." A recently completed survey (May 1990) by the Commission shows that in hospitals, nursing care delivery systems are changing rapidly. In response to the question "Do all staff RNs have the same job description?", the following was reported: In 1986, 78 percent of the hospitals did not differentiate levels of job responsibility or pay according to education or experience. For 1989, this number fell to 58 percent. When asked for 1992 projections, all but 10 percent said that they plan to use separate job descriptions factoring in education and experience levels. Responding to the question, "Do you use differentiation by education or career ladder", hospitals reported that: In 1986, 22 percent used differentiation. In 1989, 42 percent used differentiation. By 1992, 88 percent projected that they will use differentiation. Based on this survey, the trend in the hospitals is toward differentiated practice. Therefore, nursing education should respond accordingly.

Cost Study - Texas Public Schools of Nursing

The Texas Nursing Cost Study was developed using the Program Cost Analysis/ Construction Methodology (PCACM). This cost analysis model was designed by The Center for Studies in Health Policy, Incorporated (CSHP) based in Washington, D.C. The study uses 1988-89 base period cost data. The PCACM starts with a detailed description of the demand for faculty resources generated by a student contact hour schedule, the modes of instruction, and the class sizes of each program. The demand is then matched to the supply of faculty teaching time, salary and other related costs to construct the total program cost. The PCACM also identifies the key values that affect the resource requirements and costs.

The study includes 80 individual program curriculum descriptions from 28 different schools with 32 site locations. The detailed information for each program organized and summarized by school and nursing degree program type is on file at the Coordinating Board and available upon request.

The following tables compare the total costs per student to complete the certificate or degree program. Comparisons are made by summary averages related to type of institution and by the Texas average to the National Reasonable Set. The National Reasonable Set is a concept developed by CSHP to provide a national perspective on resource requirements and costs for all types of programs which is "reasonable" for the programs now and in the near future. The National Reasonable Set data is reviewed each year by a group of experts to evaluate requirements and costs in relation to the present health care system environment.

For the analysis presentation, there are ten program types:

Undergraduate (Table I)	Academic Years	Graduate (Table II) Master of Science in Nursing in:
I. Licensed Vocational Nurse	1	I. Administration
II. LVN Completion of an ASN	1-2	II. Clinical Specialty Level I (i.e.Psychiatrics,Medical/Surgical,Gerontics)
III. Associate of Science in Nursing	1-2	III. Clinical Specialty Level II (i.e.Nurse Practitioner,Neonate)
IV. RN Completion of a BSN	3-4	IV. Clinical Specialty Level III (i.e.Nurse Anesthesia,Midwife)
V. Bachelor of Science in Nursing	1-4	V. Doctoral
Bachelor of Science in Nursing	1-2+3-4	

Cost Analysis by Institutional Type (Tables I & II)

In the study group (11 community college and 4 senior college programs), the average associate degree program costs are higher in the community colleges than in the senior colleges. The community colleges' average cost is higher due to a higher average nursing faculty salary and a greater number of student contact hours in the programs requiring more faculty resources.

Generally, health science centers' average nursing program costs are higher than those at general academic institutions. This is primarily due to higher average nursing faculty salaries and other institutional costs at the health science centers. Looking at individual programs , certain program costs are lower in the health science center setting than the averages for either the general academic or Reasonable Set. The lower program costs are due to a lower faculty contact hour per student required for that program compared to the Texas average and the Reasonable Set.

The higher average nursing faculty salary and other institutional costs at the health science centers appear to be a result of the evolution of nursing schools in Texas. Before 1978, all nursing schools in The University of Texas System were appropriated funds according to justifiable need under one unit known as the statewide University of Texas Nursing School. All other schools of nursing at general academic institutions were funded under the senior colleges and universities health services formulas for faculty salaries and departmental operating expenses.

Beginning in 1974, the dean of the statewide University of Texas Nursing School was appropriated the same salary amount as that of the health science centers' president or medical dean. Then in 1978, appropriations for the schools of nursing became part of the individual general academic institution's or health science center's funding. The newly appointed nursing deans at the health science centers received the same appropriated salary amounts as the president or dean of the medical school. Schools of nursing at health science centers continue to receive appropriated funds based upon justifiable need. The University of Texas schools of nursing in general academic institutions, as well as other general academic nursing programs, receive their funding based on the senior colleges and universities' health services formulas. Thus, two separate methods of funding nursing schools at these two types of institutions evolved. And, a higher salary pattern was established at the health science centers than was available through formula funding for the general academic programs.

Cost Analysis by Program Type (Table III)

Table III presents an analysis of cost by program type:

Table I
Total Program Cost Per Student

		Undergraduate					
		I	II	III	IV	V	
		LVN	LVN-ASN	ASN	RN-BSN	BSN 1-4 & 1-2+3-4	Total Programs
Length of Program in Weeks:							
National Reasonable Set		45	60	75	75	135	
Texas Average		51	69	79	59	135	
Cost per Student Output:							
National Reasonable Set		$8,440	$8,840	$13,571	$15,216	$31,758	
Texas Average		$13,650	$10,178	$13,897	$14,285	$26,203	
Community College Average		$13,650	$10,178	$14,647			
Senior College Average				$11,646	$12,361	$24,732	
Health Science Center Average					$18,614	$30,597	
Texas Range:	High	$25,054	$12,013	$17,529	$24,815	$45,635	
	Low	$9,092	$5,750	$7,948	$4,546	$19,215	
Faculty Contact Hours per Student Output:							
National Reasonable Set		112	73	110	100	172	
Texas Average		130	77	112	92	155	
Community College Average		123	77	121			
Senior College Average				88	87	151	
Health Science Center Average				105	105	167	
Texas Range:	High *	218	92	144	113	209	
	Low *	91	58	68	55	189	
No. of Nursing Programs in Study:							
Community College Average		5	5	11			21
Senior College Average				4	9	10	23
Health Science Center Average					4	4	8
Total Individual Programs		5	5	15	13	14	52

* Related to High & Low Cost Per Student Output

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Table II
Total Program Cost Per Student

	Graduate I	II	III	IV	V	
	MS Admin	MS Clinical Level I (1)	MS Clinical Level II (2)	MS Clinical Level III (3)	Doctoral	Total Programs
Length of Program in Weeks						
National Reasonable Set	45	60	75	105	135	
Texas Average	50	52	54	77	123	
Cost per Student Output:						
National Reasonable Set	$10,075	$16,250	$21,875	$28,875	$91,000	
Texas Average	$14,671	$18,878	$28,132	$32,959	$33,989	
Community College Average						
Senior College Average	$11,217	$16,894	$21,293		$33,989	
Health Science Center Average	$18,125	$22,846	$33,262	$32,959		
Texas Range: High	$25,620	$31,503	$50,159	$42,219	$40,888	
Low	$5,122	$6,156	$13,278	$23,499	$27,090	
Faculty Contact Hours per Student Output:						
National Reasonable Set	65	125	175	275	325	
Texas Average	94	128	187	214	269	
Community College Average						
Senior College Average	84	120	183		269	
Health Science Center Average	104	146	189	214		
Texas Range: High *	117	188	229	255	220	
Low *	58	71	149	172	317	
No. of Nursing Programs in Study:						
Community College Average						
Senior College Average	4	6	3		2	15
Health Science Center Average	4	3	4	2		13
Total Individual Programs	8	9	7	2	2	28

* Related to the programs with the Highest and Lowest Cost per Student Output

(1) Specialties such as Medical/Surgical, Psychiatrics, Gerontics
(2) Specialties such as Nurse Practitioner, Neonate
(3) Specialties such as Nurse Anesthesia, Midwifery

Table III - Cost Analysis by Type of Program

Program Type	No. of Programs in Texas Study	Program Cost Per Student Output Comparisons	Primary Factors Involved in Cost Variances
LVN	5	Reasonable Set $ 8,440 Texas Avg. $13,560 Range: High $25,054 Low $ 9,092	• Higher number of faculty contact hours per student required to teach Texas programs • Lower number of hours related to faculty availability <u>High</u> • Same factors as above <u>Low</u> • Student faculty ratio higher than both Texas average and Reasonable Set • Lower number of faculty contact hours per student required
LVN Completion of ASN	5	Reasonable Set $ 8,840 Texas Avg. $10,178 Range: High $12,013 Low $ 5,750	• Higher number of faculty contact hours per student required to teach Texas programs • Greater percentage of teaching occurs in clinical setting requiring lower student/faculty ratios <u>High</u> • Same factors as above • Greater number of weeks required to complete program <u>Low</u> • Program completed in one year instead of two • Lower number of faculty contact hours per student to teach program
ADN/ASN	15	Reasonable Set $13,571 Texas Avg. $13,897 Range: High $17,529 Low $ 7,948	• Variance is insignificant <u>High</u> • Higher number of faculty contact hours per student required to teach program • Greater percentage of teaching occurs in clinical setting requiring lower student/faculty ratios <u>Low</u> • Lower number of faculty contact hours per student required to teach the program

Table III (continued)
Cost Analysis by Type of Program

Program Type	No. of Programs in Texas Study	Program Cost Per Student Output Comparisons	Primary Factors Involved in Cost Variances
RN Completion of BSN	13	Reasonable Set $15,216 Texas Avg. $14,285 Range: High $24,815 Low $ 4,546	• Higher number of faculty contact hours per student in the Reasonable Set • Lower student/faculty ratio in the Reasonable Set • Higher average faculty salary in the Reasonable Set High • Higher number of faculty contact hours per student required to teach the program • Greater percentage of teaching occurs in clinical setting requiring lower student/faculty ratio • Greater percentage of contact hours taught by nursing faculty Low • Lower number of faculty contact hours per student required to teach the program • Lower average faculty salary and other institutional cost factors
BSN	14	Reasonable Set $31,758 Texas Avg. $26,203 Range: High $45,635 Low $19,215	• Higher number of faculty contact hours per student in the Reasonable Set • Lower student/faculty ratio in the Reasonable Set • Higher average faculty salary in the Reasonable Set High • Higher number of faculty contact hours per student required to teach program • Greater percentage of teaching occurs in clinical setting requiring a lower student/faculty ratio • Greater percentage of contact hours taught by nursing faculty • Higher institutional cost factor Low • Greater number of hours of faculty available for teaching • Lower average faculty salary and other institutional cost factors • Lower number of faculty contact hours per student required to teach program

Table III (continued)
Cost Analysis by Type of Program

Program Type	No. of Programs in Texas Study	Program Cost Per Student Output Comparisons	Primary Factors Involved in Cost Variances
MSN: Administration	4	Reasonable Set $10,075 Texas Avg. $14,671 Range: High $25,620 Low $ 5,122	• Higher number of faculty contact hours per student required to teach Texas programs • Greater percentage of teaching occurs in the clinical setting requiring a lower student/faculty ratio • Greater percentage of contact hours taught by nursing faculty High • Higher number of faculty contact hours per student required to teach the program • Greater percentage of teaching occurs in clinical setting requiring lower student/faculty ratio • Higher other institutional cost factors Low • Lower number of faculty contact hours per student required to teach the program • Greater percentage of contact hours occurs in seminar mode allowing for higher student/faculty ratio • Greater number of hours of faculty available to teach • Lower average faculty salary
MSN: Clinical Specialty I (i.e. Medical/ Surgical, Psychiatrics, Geriatrics)	9	Reasonable Set $16,250 Texas Avg. $18,878 Range: High $31,503 Low $ 6,156	• Higher number of faculty contact hours per student required to teach Texas programs • Greater percentage of teaching occurs in clinical setting requiring a lower student/faculty ratio • Greater percentage of contact hours taught by nursing faculty High • Same as above • Higher average faculty salary and other institutional cost factors Low • Lower number of faculty contact hours per student required to teach program • Greater number of hours faculty available to teach • Lower average faculty salary and other institutional cost factors

Table III (continued)
Cost Analysis by Type of Program

Program Type	No. of Programs in Texas Study	Program Cost Per Student Output Comparisons	Primary Factors Involved in Cost Variances
MSN: Clinical Specialty II (i.e. Nurse Practitioner, Neonate)	7	Reasonable Set $21,875 Texas Avg. $28,132 Range: High $50,159 Low $13,278	• Higher number of faculty contact hours per student required to teach Texas programs <u>High</u> • Same as above • Greater number of weeks required to complete program • Higher other institutional cost factors <u>Low</u> • Lower number of faculty contact hours per student required to teach the programs • Greater number of hours of faculty available to teach • Lower average faculty salary and other institutional cost factors
MSN: Clinical Specialty III (i.e., Nurse Anesthesia, Midwifery)	2	Reasonable Set $28,875 Texas Avg. $32,959 Range: High $42,419 Low $23,499	• Higher other institutional cost factors in Texas programs • Greater percentage of contact hours taught by nursing faculty <u>High</u> • Same as above • Greater percentage of teaching occurs in clinical setting requiring a lower student/faculty ratio <u>Low</u> • Lower number of faculty contact hours per student required to teach program • Lower average faculty salary and other institutional cost factors
Doctoral	2	Reasonable Set $91,000 Texas Avg. $33,989 Range: High $40,888 Low $27,090	• Fewer number of weeks required to teach Texas programs • Smaller percentage of teaching occurs in the clinical setting • Lower number of faculty contact hours per student required to teach in Texas programs • Lower average faculty salary and other institutional costs • Greater number of hours of faculty available for teaching <u>High</u> • Higher average faculty salary and other institutional cost factors <u>Low</u> • Lower average faculty salary and other institutional cost factors
Total	80		

Formula Recommendations

As stated previously, public nursing schools are located in three different institutional sites - community colleges, general academic institutions and health science centers. Each of these institutional types have different missions.

Funding for each of these types of institutions has evolved separately. Two of the three, community colleges and general academic institutions, are formula funded. The third, health science centers, is funded based on justifiable need.

The formula systems for the community colleges and general academic institutions evolved separately and are distinct from each other.

Community colleges are partially state-supported. Their state formula system, which is student contact hour driven, produces a lump sum appropriation for each institution. It consists of a separate table of rates for general academic and vocational-technical programs. These rates are based on a composite of cost studies done for eight elements of cost at the individual institutions.

The senior college and universities formula system produces a lump sum appropriation for each institution based on separate formulas for 14 elements of cost. Two of those formulas, faculty salaries and departmental operating expense, are based on a matrix of rates for 19 program areas. These rates multiplied by the total number of program semester credit hours produced determines the total recommended appropriated amount for each formula area. The program area used for both nursing and allied health is health services - which has one of the highest rates in the matrix.

The key factor in the formulas for faculty salaries and departmental operating expenses is the proper relationship of the rates within the matrix of rates. If any one rate changes, it changes the distribution of the appropriations. Therefore, when one rate is changed, all other rates should be studied.

For the 1992-1993 biennium, the Coordinating Board recommended a new nursing faculty salary formula for the health science centers. The health science centers' nursing faculty salary formula study committee is continuing to work on the development of a formula for funding departmental operating and instructional administrative expenses in schools of nursing.

The new faculty salary formula is a faculty resource driven model based on the "National Reasonable Set" (as defined on page 9). In developing their formula recommendations, the formula study committee used a smaller sampling (49 programs and 9 institution) of the cost study data used in this report. The formula calculates total faculty full-time equivalents needed across all nursing degree programs within the institution. Total faculty full-time equivalents needed times an average faculty salary equals the recommended appropriated

amount. Average faculty salary is an average based on doctorally prepared nursing faculty in the 10 states closest in population to that of Texas.

The function of each formula system outlined is to recommend funding levels and equitable distribution of the available funds. The actual level of funding received is determined by the Governor and the Legislature.

For equity in distribution, differences in missions among the various institutional types, and different cost structures resulting from the varying funding mechanisms used during the evolution of Texas nursing schools, we recommend the following:

FUNDING RECOMMENDATIONS

1) That in bringing nursing programs at health science centers under a formula, nursing programs at community colleges and senior colleges and universities continue to receive funding within the formula systems.

2) That nursing programs at health science centers receive funding for nursing faculty salaries under the new formula recommended by the Coordinating Board. And, the Board develop formulas for funding departmental operating and instructional administrative expenses at schools of nursing for the 1994-95 biennium.

3) That nursing programs at senior colleges and universities be funded for faculty salaries on the new health science centers' formula for nursing faculty salaries with the provision that no funds generated under this formula be transferred to any other program or use.

4) That a one-time special fund, outside of the formula system, to increase nursing school enrollments be trusteed to the Coordinating Board to allocate to public community colleges during the 1992-93 biennium. It is further recommended that private educational institutions be included in a similar fund.

5) That the Legislature, failing to accept recommendation 3 above, provide a special fund similar to that recommended under recommendation 4 for the Coordinating Board to allocate to the senior colleges and universities during the 1992-93 biennium.

The one-time special trusteed funds recommendation is in response to the nursing shortage. To insure that the special fund increases nursing school enrollments rather than shift students from private to public schools, both private and public educational institutions should be included. The institutions were surveyed to determine how may additional nursing students they could accommodate given additional funds. For those institutions participating in such trusteed funds, the institution will receive $7,000 for each certified additional full-time equivalent student enrolled during the 1992-93 biennium. This is a one-time recommendation since the additional enrollments at public schools will increase formula produced amounts for the 1994-95 biennium. Private schools will not receive state funding beyond the 1992-93 biennium.

If fully funded, the recommendations represent an estimated increase over 1991 appropriations of:

Dollar Increase Over 1991
(In Millions)

	Under Recommendation 3			Under Recommendation 4		
	1992	1993	Biennium	1992	1993	Biennium
Health Science Centers' New Faculty Salary Formula:						
Health Science Centers	$ 4.5	$ 5.3	$ 9.8	$ 4.5	$ 5.3	$ 9.8
Public Universities*	5.3	10.4	15.7	**	**	**
Trusteed Funds:						
Public Universities	--	--	--	3.5	7.0	10.5
Public Community Colleges	4.9	9.8	14.7	4.9	9.8	14.7
Private Universities	1.4	1.4	2.8	1.4	1.4	2.8
Totals	$16.1	$26.9	$43.0	$14.3	$23.5	$37.8

* Dollar amounts shown represent increase over current formula system funding.
** Will revert to current formula system funding.

Funding for 1992-1993 is based upon actual enrollments so estimated increases may differ slightly from the actual increase.

Details related to the formula funding and special trusteed funds are provided in the appendix.

Appendices

APPENDIX A

AHC
ASSOCIATION OF
ACADEMIC
HEALTH
CENTERS

COORDINATING BOARD
JUL 17 1990
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JOSEPH P. VAN DER MEULEN, M.D.
HARRY P. WARD, M.D.

July 10, 1990

Marlene F. Clark
Director of Financial Planning
Texas Higher Education Coordinating Board
Reed Building
200 E. Riverside Drive
Austin, TX 78711

Dear Marlene:

I write to offer a few comments about nursing education in general, the need for a diversified, multi-skilled army of nurses entering the health care arena each year and, finally, the particular role of undergraduate programs within schools of nursing at our nation's academic health centers.

First of all, nursing education in general: it seems clear that the demands of the health care system upon the nurse have been tremendous with doctors and hospital administrators and health system managers and payers asking nurses to play an extraordinarily wide range of roles. In my view, we have evolved three sites for our nursing schools, broadly speaking; none of them are mutually exclusive in what they offer but I believe there is a natural emphasis in each one. The first category includes the junior and community colleges which offer RN programs, which largely focus on community hospitals and bread and butter nursing. The second broad category includes those university based Bachelor's degree programs which are fully integrated with the rest of the undergraduate college, such as the program at the University of Texas at Austin; these programs offer the student the opportunity to acquire an excellent general education as well as their professional training. Students can learn more about such crucial subjects as psychology, anthropology, organizational theory, ethics, and the basics of social science. The third category includes those schools which are located within the nation's great academic health centers; the UT schools at San Antonio, Houston and Galveston are good examples. These institutions can offer students direct and intimate experience with all the complexities of the modern, specialty oriented medical center with all its strengths and weaknesses, challenges and opportunities. In this latter setting, there is the opportunity for students from several professions to work closely together, not to mention the more important and all too frequently underutilized opportunity for faculties from the different professional schools to engage with each other in service and research and education projects.

Just a few words about the second point of demand upon nursing by various parts of the system: there seems little doubt that we haven't fully clarified where our demands will end upon nursing. Obviously, they are being asked to be and are the soul of the modern hospital, the professional to whom everyone turns to provide the compassion, concern and empathy that is so difficult to

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interject in our increasingly intense technological environment. Furthermore, we are turning to nurses to run the high-tech interventions that characterize our hospital and out-patient environments. Finally, we want the nurses to manage and organize a good deal of what gets done in the system. Whether all these demands will remain in the future and/or are proper expectations, we must, nevertheless, realize that they are the current demands and expectations to which the profession and the educational establishment is being held accountable.

Finally, the place of the academic health center as a proper locus for some schools of nursing, both for undergraduate and graduate degrees: 20 per cent of the nation's hospital care is being delivered in teaching hospitals, the most technologically intense being located in our academic health centers. Hospitals are moving more and more to become places where high-tech medicine is practiced, with everything else being done in the out-patient arena. Thus the pressure will remain high to continue to produce nurses who are comfortable and competent in these areas. Also, the pressures are mounting on all the professions to do better in working with teams, to focus on cost-effective, patient-centered care; this sort of thing must be fostered in the educational setting where all these various students congregate, which is of course the academic center.

In essence, it is my belief that society needs nurses from a variety of backgrounds, with a variety of skills and capacities; we clearly need some who can hold their own in the high technology of the modern medical center and who can become and remain comfortable in that tough environment throughout their professional lives. The state that cuts itself off from a cadre of nurses trained within the major teaching hospital setting will find itself at a serious disadvantage as it tries to provide the full array of health services to its population. Obviously, I can enlarge on these points, probably ad nauseam, but let me close by saying only that I shall be happy to answer any questions or develop any of these points more fully if you might find it useful.

Sincerely yours,

Roger J. Bulger, M.D., FACP

APPENDIX B

Texas Higher Education Coordinating Board

RECOMMENDED FORMULA FOR
STATE-SUPPORT OF VOCATIONAL-TECHNICAL PROGRAMS

Public Junior Colleges
1992-93 Biennium

Base period contact hours for the following quarterly terms (March-May 1990; June-August 1990; September-November 1990; December 1990-February 1991) times the following rates equals dollar request for State Support of Vocational-Technical Programs.

	Rates Per Base Period Contact Hour	
	Fiscal Year 1992	Fiscal Year 1993
Agriculture	$ 5.38	$ 5.70
Homemaking	4.45	4.72
Distribution & Marketing		
Restaurant Management	4.77	5.06
Mid-Management	4.20	4.45
Fashion Merchandising	4.95	5.24
Other Distribution & Marketing	3.90	4.12
Office Occupations		
Secretarial & General Business	4.07	4.31
Business Data Processing	4.37	4.63
Word Processing	4.26	4.52
Industrial Education		
Welding	5.18	5.48
Automotive	5.38	5.70
Diesel Mechanics	6.71	7.11
Cosmetology	3.18	3.37
Fire Protection	3.64	3.86
Airframe & Power Mechanic	5.37	5.68
Law Enforcement	3.78	4.01
Machine Shop	5.30	5.61
Printing & Graphic Arts	5.38	5.70
Building Construction	5.07	5.37
Photography	5.69	6.04
Other Industrial Education	4.60	4.88
Health Occupations		
Associate Degree Nursing	6.88	7.29
Vocational Nursing	3.96	4.19
Dental Assisting	8.12	8.61
Dental Hygiene	8.29	8.78
Medical Laboratory	8.32	8.81
Respiratory Therapy	5.83	6.18
Surgical Technology	5.27	5.58
Mental Health	3.57	3.78
Radiologic Technology	5.26	5.57
Other Health Occupations	4.64	4.92
Technical Education		
Career Pilot	14.14	14.98
Drafting & Design	4.92	5.21
Electronics	4.98	5.27
Other Technical Education	5.58	5.91
Related	3.99	4.22
Adult Apprenticeship	3.53	3.74
Adult (Supplementary/Preparatory)	3.72	3.94
Cooperative Work Experience	3.21	3.40

NOTE: Does not include Faculty and Staff Group Insurance.

APPENDIX C

Texas Higher Education Coordinating Board

RECOMMENDED FORMULA
FOR
FACULTY SALARIES

Public Senior Colleges and Universities
1992-93 Biennium

Base period semester credit hours (Summer Session 1990, Fall Semester 1990 and Spring Semester 1991) times the following rates equals dollar request for Faculty Salaries.

	Fiscal Year 1992 Rates Per Base Period Semester Credit Hour				
	Undergraduate				
Program	Four-Year Institutions	Upper-Level Institutions	Masters	Special Professional	Doctoral
Liberal Arts.....	$ 45.84	$79.76	$132.40	$	$451.23
Science.....	49.03	94.09	220.41		649.73
Fine Arts.....	88.70	121.47	204.12		654.22
Teacher Education.....	45.90	48.62	112.99		386.81
Teacher Education - Practice Teaching.....	101.96	101.96			
Agriculture.....	63.70	63.70	183.89		571.55
Engineering.....	88.46	106.16	234.59		649.73
Home Economics.....	64.81	64.81	157.51		426.24
Law.....				120.69	
Social Service.....	70.24	80.74	241.63		451.23
Library Science.....	48.14	48.14	143.59		451.23
Vocational Training.....	45.16	45.16			
Physical Training.....	43.43				
*Health Services.....	139.26	139.26	237.02		719.32
Pharmacy.....	113.62		241.98		654.22
Business Administration..	53.43	60.38	148.82		619.74
Optometry.....				190.75	649.73
Technology.....	79.19	102.17	231.52		

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* Base period semester credit hours for nursing programs shall be excluded in these computations. Faculty salary formula produced amounts for the nursing programs only shall be computed using the faculty salaries formula recommended for nursing programs in health science centers. The dollars produced by combining the two formula computations shall be the total faculty salaries formula produced amount.

Texas Higher Education Coordinating Board

RECOMMENDED FORMULA
FOR
FACULTY SALARIES (continued)

Public Senior Colleges and Universities
1992-93 Biennium

Program	Fiscal Year 1993 Rates Per Base Period Semester Credit Hour				
	Undergraduate				
	Four-Year Institutions	Upper-Level Institutions	Masters	Special Professional	Doctoral
Liberal Arts	$50.78	$ 88.37	$146.71	$	$499.97
Science	54.32	104.26	244.22		719.91
Fine Arts	98.28	134.60	226.17		724.88
Teacher Education	50.85	53.87	125.19		428.59
Teacher Education - Practice Teaching	112.97	112.97			
Agriculture	70.58	70.58	203.75		633.29
Engineering	98.01	117.62	259.93		719.91
Home Economics	71.81	71.81	174.52		472.28
Law				133.73	
Social Service	77.83	89.46	267.72		499.97
Library Science	53.34	53.34	159.11		499.97
Vocational Training	50.03	50.03			
Physical Training	48.12				
*Health Services	154.30	154.30	262.63		797.02
Pharmacy	125.90		268.11		724.88
Business Administration	59.21	66.90	164.90		686.68
Optometry				211.35	719.91
Technology	87.75	113.20	256.53		

* Base period semester credit hours for nursing programs shall be excluded in these computations. Faculty salary formula produced amounts for the nursing programs only shall be computed using the faculty salaries formula recommended for nursing programs in health science centers. The dollars produced by combining the two formula computations shall be the total faculty salaries formula produced amount.

APPENDIX D

Texas Higher Education Coordinating Board

RECOMMENDED FORMULA
FOR
DEPARTMENTAL OPERATING EXPENSE

Public Senior Colleges and Universities
1992-93 Biennium

Base period semester credit hours (Summer Session 1990, Fall Semester 1990 and Spring Semester 1991) times the following rates equals dollar request for Departmental Operating Expense.

Program	Fiscal Year 1992 Rates Per Base Period Semester Credit Hour: Undergraduate	Masters	Special Professional	Doctoral
Liberal Arts	$ 4.51	$17.22	$	$ 81.06
Science	19.48	64.82		262.52
Fine Arts	19.48	64.82		262.52
Teacher Education (Includes Practice Teaching)	8.14	16.21		64.82
Agriculture	14.62	64.82		262.52
Engineering	29.16	64.82		262.52
Home Economics	11.36	32.43		64.82
Law			17.22	
Social Service	8.14	24.29		64.82
Library Science	9.78	16.21		81.06
Vocational Training	12.93			
Physical Training	8.14			
Health Services	18.14	72.58		293.84
Pharmacy	40.68	64.82		262.52
Business Administration	8.14	32.43		64.82
Optometry			81.66	262.52
Technology	15.36	64.82		
Military Science	8.14			

NOTES: 1. If the formula produced amount is less than $824,800 the amount requested shall be 22% of Faculty Salaries or the formula produced amount, whichever is greater. The maximum amount that may be requested using the percentage of Faculty Salaries is $824,800.

2. If the appropriated rates per semester credit hour are different than the recommended rates shown above, the $824,800 in Note 1 should be adjusted proportionately.

Texas Higher Education Coordinating Board

RECOMMENDED FORMULA
FOR
DEPARTMENTAL OPERATING EXPENSE (continued)

Public Senior Colleges and Universities
1992-93 Biennium

Program	Fiscal Year 1993 Rates Per Base Period Semester Credit Hour: Undergraduate	Masters	Special Professional	Doctoral
Liberal Arts	$ 4.81	$18.35	$	$ 86.39
Science	20.76	69.08		279.77
Fine Arts	20.76	69.08		279.77
Teacher Education (Includes Practice Teaching)	8.68	17.28		69.08
Agriculture	15.58	69.08		279.77
Engineering	31.07	69.08		279.77
Home Economics	12.11	34.56		69.08
Law			18.35	
Social Service	8.68	25.89		69.08
Library Science	10.42	17.28		86.39
Vocational Training	13.78			
Physical Training	8.68			
Health Services	19.33	77.34		313.15
Pharmacy	43.35	69.08		279.77
Business Administration	8.68	34.56		69.08
Optometry			87.03	279.77
Technology	16.37	69.08		
Military Science	8.68			

NOTES: 1. If the formula produced amount is less than $879,000 the amount requested shall be 22% of Faculty Salaries or the formula produced amount, whichever is greater. The maximum amount that may be requested using the percentage of Faculty Salaries is $879,000.

2. If the appropriated rates per semester credit hour are different than the recommended rates shown above, the $879,000 in Note 1 should be adjusted proportionately.

APPENDIX E

Texas Higher Education Coordinating Board

RECOMMENDED FORMULA HEALTH SCIENCE CENTERS' NURSING FACULTY SALARY 1992-93 BIENNIUM

Equal to Faculty FTE resources times average faculty salary rates equals dollar request for Nursing Faculty Salary. Faculty FTE resources, based on national Reasonable Set data[1], are determined by Entering Class Size in the base period (Summer Session 1990, Fall Semester 1990 and Spring Semester 1991), Faculty Contact Hour Demand, and Teaching Load.

Faculty FTE resources x average faculty salary rates = dollar request for Nursing Faculty Salary

ECS (FCH/SO) = FCHD

FCHD/TL = Faculty FTE Resources

FFTE x AFS = Formula $ Amount

WHERE:

ECS = Entering Class Size

FCH = Faculty Contact Hours in Program

SO = Student Output

FCHD = Faculty Contact Hour Demand

TL = Teaching Load

FFTE = Faculty Full-time Equivalent

AFS = Average Faculty Salary

Average Faculty Salary Rates

1992	$57,065
1993	$60,399

[1] See "Reasonable Set" Table

Note: Because implementing a new formula usually causes a redistribution of the funds, it is recommended that for the 1992-93 biennium no institution receive less than they did for the 1990-91 biennium.

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APPENDIX E - RECOMMENDATION 3

PROGRAM DECISION PACKAGE-DESCRIPTION OF LEVELS

PROGRAM: Funding for Expansion of Nursing Programs	ACTIVITY:	AGENCY Texas Higher Education Coordinating Board	PREPARED BY: William A. Webb	DATE: 07-01-90

DESCRIPTION OF ACTIVITY AT LEVEL 4:

House Concurrent Resolution 92, Acts of the 71st Legislature in regular session 1989 directed the Coordinating Board "to study all issues and concerns related to the nursing shortage; career mobility among the various nursing programs; and collaboration among schools in geographic proximity." The resolution requires the Coordinating Board to make a complete report including recommendations to the Lt. Governor and Speaker of the House by October 1, 1990.

The report states that the nursing shortage is real and it threatens healthcare across the United States. Nationwide, 10 percent of budgeted positions for hospital staff RNs remain unfilled. The Texas Hospital Association reports a statewide vacancy rate of 16 percent. At the same time, there are more RNs licensed and working in Texas now than ever before. Demand for nurses continues to outrun increases in supply for many complex and interrelated reasons. A 1990 report to Congress from the Department of Health and Human Services predicts that the demand for nurses will continue to exceed supply for the next 15 years.

A Texas Nurses Association survey indicates that an estimated 2,000 qualified applicants will be turned away from entry-level Texas nursing programs in fall 1990. Therefore, the report recommends that nursing schools increase first-time enrollments in nursing programs at the clinical and MSN training levels to help resolve the shortage of nurses and to provide more faculty for nurse training programs at the Diploma, ADN, BSN and MSN levels at the private institutions and the public community colleges.

To increase the number of nurses in training, an appropriation of $14.7 million trusteed to the Coordinating Board to allocate to public community colleges. Contingent upon Legislation, an additional $2.8 million is requested to fund 200 additional nursing students for the private educational institutions during the 1992-93 biennium.

The requested appropriations would be allocated to both private institutions and public community colleges on the basis of institutional certification of full-time equivalent student enrollment increases and availability of clinical positions for the semester of entry fiscal year 1992 over the comparable semester in fiscal year 1991. For public institutions, fiscal year 1993 allocations would depend on maintaining the increased number of students enrolled in fiscal year 1992 plus the full-time equivalent student enrollment increase over 1992. For private institutions, fiscal year 1993 allocations would depend on maintaining the increased number of students enrolled in 1992. No additional funds would be provided for 1993 enrollment increases.

The public senior colleges and universities are to use the regular formula funding recommended by the Coordinating Board as of February 1, 1990 for purpose of operating their nursing programs.

The money for both private and public educational institutions will be allocated to each institution on a capitation basis at $7,000 per capita for enrollment increases.

	Fiscal Year	
1992-93 BIENNIAL APPROPRIATION:	1992	1993
FOR PUBLIC COMMUNITY COLLEGES	$ 4,900,000	$ 9,800,000 and U.B.
FOR PRIVATE NURSING SCHOOLS AND INSTITUTIONS OF HIGHER EDUCATION	1,400,000	1,400,000 and U.B.
TOTAL APPROPRIATION REQUESTED	$ 6,300,000 and U.B.	$11,200,000

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Recommended Coordinating Board Trusteed Funds for Nursing Program Expansions

House Concurrent Resolution 92, Acts of the 71st Legislature in regular session 1989 directed the Coordinating Board "to study all issues and concerns related to the nursing shortage; career mobility among the various nursing programs; and collaboration among schools in geographic proximity." The resolution requires the Coordinating Board to make a complete report including recommendations to the Lt. Governor and Speaker of the House by October 1, 1990.

The report states that the nursing shortage is real and it threatens healthcare across the United States. Nationwide, 10 percent of budgeted positions for hospital staff RNs remain unfilled. The Texas Hospital Association reports a statewide vacancy rate of 16 percent. At the same time, there are more RNs licensed and working in Texas now than ever before. Demand for nurses continues to outrun increases in supply for many complex and interrelated reasons. A 1990 report to Congress from the Department of Health and Human Services predicts that the demand for nurses will continue to exceed supply for the next 15 years.

A Texas Nurses Association survey indicates that an estimated 2,000 qualified applicants will be turned away from entry-level Texas nursing programs in fall 1990. Therefore, the report recommends that nursing schools increase first-time enrollments in nursing programs at the clinical and MSN training levels to help resolve the shortage of nurses and to provide more faculty for nurse training programs at the Diploma, ADN, BSN and MSN levels at the private institutions and the public community colleges.

To increase the number of nurses in training, an appropriation of $25.2 million trusteed to the Coordinating Board to allocate to public community colleges and general academic institutions during the 1992-93 biennium will be required. Contingent upon Legislation, an additional $2.8 million is requested to fund 200 additional nursing students for the private educational institutions during the 1992-93 biennium.

The requested appropriations would be allocated to both private institutions and public community colleges and general academic institutions on the basis of institutional certification of full-time equivalent student enrollment increases and availability of clinical positions for the semester of entry fiscal year 1992 over the comparable semester in fiscal year 1991. For public institutions, fiscal year 1993 allocations would depend on maintaining the increased number of students enrolled in fiscal year 1992 plus the full-time equivalent student enrollment increase over 1992. For private institutions, fiscal year 1993 allocations would depend on maintaining the increased number of students enrolled in 1992. No additional funds would be provided for 1993 enrollment increases.

The money for both private and public educational institutions will be allocated to each institution on a capitation basis at $7,000 per capita for enrollment increases.

	Fiscal Year	
1992-93 Biennial Appropriation:		
	1992	1993
For Public Community Colleges and General Academic Institutions	$ 8,400,000	$16,800,000 and U.B.
For Private Nursing Schools and Institutions of Higher Education	1,400,000	1,400,000 and U.B.
Total Appropriation Requested	$ 9,800,000	$18,200,000 and U.B.

APPENDIX G

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